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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,194	03/17/2000	G. Alton Waschka	HES-Y-336	3616

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EXAMINER

PHU, PHUONG M

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 04/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/527,194

Applicant(s)

WASCHKA ET AL.

Examiner

Phuong Phu

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 1002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Oath/Declaration

1. It does not identify the mailing or post office address of each inventor. A mailing or post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing or post office address should include the ZIP Code designation. The mailing or post office address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Degura et al (5,105,294), provided in the IDS filed on 6/19/00.

As per claim 1, see figures 2B, 2C, 3B, 3C, 12 and 13, and col. 12, line 27 to col. 15, line 30 and col. 15, lines 60-68, Degura et al discloses a method for discriminating between plural types of transmitters, corresponding to transmitter paths (41, 42, 43, 49, 50), (41, 42, 45, 49, 50), and (41, 42, 47, 49, 50) for receiving signals (1N-1), (1N-2) and (1N-n), respectively (see figure 12), characterized by chirp conversions (43), (45) and (47), respectively, for transmitting chirp signals of different slopes (44), (46) and (48), respectively, (inherently within a same frequency operating range of means (49)), wherein the method/system (see figure 13) comprises:

step (53) for receiving a chirp signal;

step (54, 56, 58) for detecting the slope of the received signal wherein the detection includes chirp conversion means (54), (56) and (58) having reverse slopes corresponding to the

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conversions (43), (45) and (47), respectively; for instance, means (54) would output an output wave shape (see figure 3E) if means (54) detects a signal having slope (44), and so on

step (54, 56, 58) for determining the transmitter type (transmitter path) of the received signal, based on the detection of slope of the received signal, for further recovering the signal (OUT-1, OUT-2 or OUT-N) which is transmitted by said transmitted path.

As per claim 2, Degura et al discloses step/means (49, 50) for asynchronously transmitting chirp signals in a same place (see figure 12).

As per claims 3-5, Degura et al discloses that the transmitting type is determined as a function of magnitude and polarity of the detected chirp slope (see figure 13).

As per claim 6, see figures 2B, 2C, 3B, 3C, 12 and 13, and col. 12, line 27 to col. 15, line 30 and col. 15, lines 60-68, Degura et al discloses a method for discriminating between 2 types of transmitters, corresponding to transmitter paths (41, 42, 43, 49, 50) and (41, 42, 47, 49, 50) for receiving signals (1N-1) and (1N-n), respectively (see figure 12), characterized by chirp conversions (43) and (47), respectively, for transmitting chirp signals of opposite slopes (44) and (48), respectively, (inherently within a same frequency operating range of means (49)), wherein the method/system (see figure 13) comprises:

step (53) for receiving a chirp signal;

step (54, 58) for detecting the slope of the received signal wherein the detection includes chirp conversion means (54) and (58) having reverse slopes corresponding to the conversions (43) and (47), respectively; for instance, means (54) would output an output wave shape (see figure 3E) if means (54) detects a signal having slope (44), and so on.

As per claim 7, Degura et al discloses step (49, 50) for asynchronously transmitting chirp signals of opposite slopes outputted from means (43, 47) (see figure 12).

As per claims 17 and 18, see figures 2B, 2C, 3B, 3C, 12 and 13, and col. 12, line 27 to col. 15, line 30 and col. 15, lines 60-68, Degura et al discloses a system (figures 12 and 13) having a first type of transmitting and receiving paths (41, 42, 43, 49, 50) and (54, 60, 61) respectively for transmitting and receiving a first chirp signal of a first predetermined slope (44),; and having a second type of transmitting and receiving paths (41, 42, 47, 49, 50) and (58, 60, 61) or paths (41, 42, 45, 49, 50) and (56, 60, 61) for transmitting and receiving a second chirp signal having a different slope (48) or (46) from the first predetermined slope, in the same place.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Degura et al.

As per claims 8 and 12, see figures 2B, 2C, 3B, 3C, 12 and 13, and col. 12, line 27 to col. 15, line 30 and col. 15, lines 60-68, Degura et al discloses a method and associated system (figures 12 and 13) having paths (41, 42, 43, 49, 50) and (54, 60, 61) respectively for transmitting and receiving a first chirp signal of a first predetermined slope (44), the first predetermined slope continuously increasing in frequency within a first predetermined frequency band (B) within the frequency operating band of means (49) during a predetermined amount of time (T); and having paths (41, 42, 47, 49, 50) and (58, 60, 61) or paths (41, 42, 45, 49, 50) and

(56, 60, 61) for transmitting and receiving a second chirp signal having a different slope (48) or (46) from the first predetermined slope over the second predetermined frequency band within the frequency operating band of means (49) in the same place.

Degura et al does not disclose that the first predetermined frequency band is the same as the second predetermined frequency band. However, as an application, it would have been obvious that one skilled in the art, based on his system specification, could implement Degura et al in such a way that the first predetermined frequency band is the same as the second predetermined frequency band as long as they are within the frequency operating band of means (49) as required. Further, with said implementation, the data capacity of the system inherently is significantly increased without increasing the first predetermined frequency band and the frequency operating band of means (49).

As per claim 9, as applied to claim 8, in Degura et al, the different slope (48) inherently must continuously decreasing in frequency over the first predetermined band (B) during the predetermined time (T) in order to obtain, for instance, the conversion gain (BT) for means (58) on the receiving path (58, 60, 61) (see col. 15, lines 1-4).

As per claims 10 and 14, Degura et al disclose that the slope (44) of the second chirp signal opposes the first predetermined slope (48) (see figure 12).

As per claims 11 and 13, Degura et al discloses that the first chirp and the second chirp signals are being asynchronously transmitted (see figure 12).

As per claim 15, Degura et al discloses that the slope of the second chirp signal (46) having the same polarity and different magnitude from the first predetermined slope (44) (see figure 12).

As per claim 16, Degura et al discloses that the slope of the second chirp signal (48) having the different polarity and different magnitude from the first predetermined slope (44) (see figure 12).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 703-308-0158. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Phuong Phu

Phuong Phu
March 12, 2003

Phuong Phu
Primary Examiner
Art Unit 2631